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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,138	11/14/2003	Mark Bohr	42P13758D	9938
8791	7590	08/12/2005	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN			WEISS, HOWARD	
12400 WILSHIRE BOULEVARD			ART UNIT	
SEVENTH FLOOR			PAPER NUMBER	
LOS ANGELES, CA 90025-1030			2814	

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/714,138

Applicant(s)

BOHR, MARK

Examiner

Howard Weiss

Art Unit

2814

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 ~~is~~ are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 ~~is~~ are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Attorney's Docket Number: 42P13758D

Filing Date: 11/14/03

Continuing Data: Division of 10/226,498 (8/22/02 now U.S. Patent No. 6,686,247); RCE  
established 6/13/05

Claimed Foreign Priority Date: none

Applicant(s): Bohr

Examiner: Howard Weiss

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/13/05 has been entered.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 to 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuoka et al. (U.S. Patent No. 6,696,732), Chappell et al. (U.S. Patent No. 5,541,427) and Dennison et al. (U.S. Patent No. 5,348,899).

Matsuoka et al. show most aspects of the instant invention (e.g. Figure 23) including:

- an active region **14** with a gated device **14c** in an SRAM cell (Column 10 Lines 9)

- a dielectric layer comprising a conformal silicon nitride etch stop **20a**, a planarized first dielectric layer **20b**, a second etch stop layer **42** and a second dielectric layer **26**
- first to fourth contacts **44,46** which either go through the dielectric layer and either stop at the etch stops or go to the gate **14c** and a junction region **14a,b**

Matsuoka et al. does not show the dielectric layer having a first thickness over the gate and a second thickness greater than the first thickness adjacent to the gate and a contact in the active region extending a first depth through the first thickness to the gate of the gated device, and extending a different second depth through a portion of the second thickness short of the junction region.

Chappell et al. teach (e.g. Figures 3 and 4) to have a dielectric layer **32,34** (made of essentially three layers of etch top materials) with a first thickness (i.e. layer **32**) over a gate **18** and a second thickness (i.e. layers **32,34**) greater than the first thickness adjacent to the gate (i.e. over junction region **31**) to help provide a small SRAM cell (Column 1 Lines 45 and 46) and to protect the underlying diffusion regions (Column 4 Lines 17 to 20). It would have been obvious to a person of ordinary skill in the art at the time of invention to have a dielectric layer with a first thickness over a gate and a second thickness greater than the first thickness adjacent to the gate as taught by Chappell et al. in the device of Matsuoka et al. to help provide a small SRAM cell and to protect the underlying diffusion regions.

Dennison et al. teach (e.g. Figures 2 and 3) to form a contact **50** extending a first depth through the first thickness to the gate of a gated device **40,42**, and extending a different second depth through a portion of the second thickness short of a junction region (which would be located below the gate oxide **34**) to minimize photolithography and etching steps (Column 2 Lines 29 to 34). It would have been obvious to a person of ordinary skill in the art at the time of invention to form a contact extending a first depth through the first thickness to the gate of a gated

device and extending a different second depth through a portion of the second thickness short of a junction region as taught by Dennison et al. in the device of Matsuoka et al. to minimize photolithography and etching steps.

### ***Response to Arguments***

4. Applicant's arguments with respect to Claims 1 to 10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

5. Paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions as of June 2004. Paper copies of foreign patents and non-patent literature will continue to be included with office actions. These cited U.S. patents and patent application publications are available for download via the Office's PAIR. As an alternate source, all U.S. patents and patent application publications are available on the USPTO web site ([www.uspto.gov](http://www.uspto.gov)), from the Office of Public Records and from commercial sources. Applicants are referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 for information on this policy. Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.
6. Papers related to this application may be submitted directly to Art Unit 2814 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The Art Unit 2814 Fax Center number is **(571) 273-8300**. The Art Unit 2814 Fax Center is to be used only for papers related to Art Unit 2814 applications.
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Weiss at **(571) 272-1720** and between the

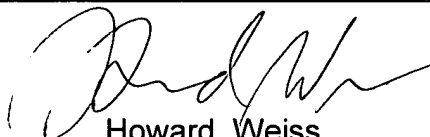
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hours of 8:00 AM to 4:00 PM (Eastern Standard Time) Monday through Friday or by e-mail via Howard.Weiss@uspto.gov.

8. The following list is the Examiner's field of search for the present Office Action:

Field of Search	Date
U.S. Class / Subclass(es): 257/368, 369, 755, 903	thru 8/10/05
Other Documentation: none	
Electronic Database(s): EAST, IEL	thru 8/10/05

HW/hw  
11 August 2005

  
Howard Weiss  
Primary Examiner  
Art Unit 2814